

REMARKS/ARGUMENTS

Claims 1-15 were submitted for examination. In this Office Action, Claim 1 was objected due to an inconsistent usage between "2D symbol" and "2D barcode". Claims 1-9 were rejected under 35 USC 102(b), as being anticipated by US Patent No. 4,924,078 to Sant'Anselmo et al, hereinafter Sant'Anselmo, and Claims 10-15 were rejected under 35 USC 103(a) as being unpatentable over Sant'Anselmo in view of US Patent No. 5,979,761 to Wurz et al, hereinafter Wurz.

In this paper, Claim 1 and Claim 10 have been amended. No new matters have been introduced. As a result of the amendment, Claims 1-15 are now pending. Further consideration of the rejections is respectfully requested in view of the amendment and the associated remarks. The detailed remarks regarding to each rejection/objection are described as follows:

Priority

Applicants appreciate Examiner for acknowledging the receipt of papers submitted under 35 U.S.C. 119(a)-(e).

Claim Objections

Applicants appreciate Examiner for pointing out the inconsistent use between "2D symbol" and "2D bar-code" in Claim 1. The foregoing amendments have corrected the informality. Accordingly, Applicants believe that the objection to Claim 1 shall be withdrawn.

Claim Rejections - 35 USC 102

Applicants have amended Claim 1 to further distinguish from the cited references:

As amended, Claim 1 recites:

providing a set of substantially parallel positioning lines to the 2D symbol, the positioning lines being neither perpendicular to nor parallel with any border of the 2D symbol; and
scanning the 2D symbol together with the positioning lines to produce a scanned image.

(Emphasis added)

As shown in FIG. 14B and 14C of the current application, the positioning lines have a slope that is different from that of the horizontal axis or the vertical axis of the 2D symbol. In other words, the positioning lines are neither perpendicular to nor parallel with any border of the 2D symbol. As described further in the corresponding description of the drawings, these positioning lines are needed to be differentiated from the 2D symbol in order to indicate therefrom the orientation of the 2D symbol.

In contrast, FIGS. 10A-10H in Sant'Anselmo show timing and orientation lines or bars are either perpendicular to or parallel with at least one border of the symbol. Therefore, Sant'Anselmo does not teach nor suggest the positioning lines being neither perpendicular to nor parallel with any border of the 2D symbol. In fact, Sant'Anselmo teaches away from the features recited in Claim 1 by showing that the timing and orientation lines are perpendicular to or in parallel with the border of the symbol. Applicants believe that independent Claim 1 shall be allowable over the cited references. The Examiner is respectfully requested to reconsider Claims 1-9.

In addition to the above reasons to support Claims 1-9, Applicants would like to point out some clarifications with regard to the rejections to Claims 2 and 3.

Claim 2

The Examiner's rejection to Claim 2 is listed as follows:

"Sant'Anselmo et al shows multiple figures where the positioning lines are provided on at least one side of the 2D symbol."

Applicants believe FIG. 10A and FIG. 10B in Sant'Anselmo may have misled the Examiner. Lines 15-24 of Col. 6 in Sant'Anselmo clearly shows that the one sided border provides timing information for scanning from left to right and a mirror image thereof provides right to left timing, no orientation may be derived from a timing bar (i.e.,

the one sided border). It is continued "The two sided border 106 of FIG. 10C provides timing and orientation information both vertically and horizontally". Sant'Anselmo admits and, in fact, the technique in Sant'Anselmo requires that two sided border be present for orientation determination, which is consistent with Claim 1 in Sant'Anselmo reciting: "... a computer readable orientation border positioned adjacent said field on at least two sides." With the unique feature recited in Claim 1 of the current invention "the positioning lines being neither perpendicular to nor parallel with any border of the 2D symbol", the positioning lines are thus provided on at least one side of the 2D symbol.

Accordingly, Applicants believe Claim 2 shall be allowable over the cited references, reconsideration of Claim 2 is respectfully requested.

Claim 3

The Examiner's rejection to Claim 3 is duplicated as follows:

As shown in the figures, the positioning lines are superimposed upon the 2D symbol. It is taught that the data cells are represented as gray shades on a gray scale or using colors on a color scale ranging from ultraviolet to infrared. The border, which is superimposed, is shown to be in a different color than the data cells. (Col. 6, Lines 57-66).

The text in Col.6, lines 57-66 of Sant'Anselmo is provided:

"FIG. 13 represents a symbol 10 in which the data cells are represented as gray shades on a gray scale or using colors on a color scale ranging from ultraviolet to infrared. The use of a gray scale or a color scale in the symbol 10 will allow stacking of data within the symbol 10, thereby further increasing information density. For example the particular color or gray scale level of a data cell may represent a note in a song while the position of the cell in the symbol represents the sequence in which the note is played."

Evidently, Sant'Anselmo teaches stacking of data within the symbol using different colors. There is no any teaching in Sant'Anselmo that shows or suggests the use of different colors for the positioning lines. Accordingly, Applicants believe Claim 3 shall be allowable over the cited reference, reconsideration of Claim 3 is respectfully requested.

Claim Rejections - 35 USC 103

Applicants have amended Claim 10 to include similar features as recited in Claim 1 by reciting a comparison of the slope of the positioning lines with that of the horizontal or vertical axis of the symbol. With the stated reasons provided above, Applicants submit that Sant'Anselmo or Wurz, viewed alone or in combination, have neither taught nor suggested "the positioning lines having a slope different than that of a horizontal axis and a vertical axis of the 2D symbol" as recited in Claim 10. Accordingly, the Examiner is respectfully requested to reconsider Claims 10-15.

In view of the above amendments and remarks, the Applicants believe that Claims 1-15 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450", on April 5, 2004.

Name: Joe Zheng

Signature: 

Respectfully submitted;



Joe Zheng

Reg.: No. 39,450